

Juvenile Monitoring Satellite Project Work Team

Meeting Notes

May 27, 2004

Jones & Stokes

Participants: Phillip Gaines (FWS), Michelle Workman (EBMUD), Alice Low (DFG), Jim Earley (FWS), Donna Maniscalco (Jones & Stokes), Richard Corwin (USBR), Erin Chappel (DWR), Tracy McReynolds (DFG), Duane Massa (DFG), Colleen Harvey-Arrison (DFG), Pat Brandes (FWS), Jason Kindopp (DWR), Larry Hansen (FWS), Kevin Melanephy (Fishery Foundation), Bill Poytress (FWS), Joe Bandel (YCWA), Ryon Kurth (DWR), Andrea Fuller (S.P. Cramer), Rob Titus (DFG), Bill Mitchell (Jones & Stokes), J.D. Wikert (FWS)

I. Modify/Adopt agenda - The agenda was adopted with no changes.

II. Featured presentations:

Kevin Melanephy: The Fishery Foundation of California (FFC) is conducting snorkeling surveys to document the populations of salmon and steelhead in the American River. The snorkel surveys sample over 23 miles of the lower American River from near the mouth (at Hwy 160) upstream to Nimbus Dam. The survey sites are comprised of multiple sampling units that encompass local habitat conditions, individually known as *Polygons*. Each polygon samples a defined area and habitat such as fast riffle, slow backwater and rip rapped levee. Polygons offer flexibility and adaptability for surveyors who must adjust to constantly changing flows and habitat conditions through their ability to move up and down the bank and through the water column. Snorkel surveys with polygons provide a diversity of physical habitat units that can assess population numbers over different habitat types. Snorkel surveys employing polygons combined with other forms of population density data provide useful and beneficial information to policy decision managers.

Bill Mitchell: Jones & Stokes - The Yuba River Water Transfer Monitoring and Evaluation Program was initiated by Yuba County Water Agency in 2002 to evaluate the effects of water transfers on salmon and steelhead in the lower Yuba River. The primary objectives of the program are to evaluate the effects of summer water transfers on downstream movements of juvenile steelhead and upstream movements of adult Chinook salmon in the Yuba River. Jones & Stokes is currently operating three rotary screw traps to evaluate the timing and abundance of juvenile steelhead moving past Daguerre Point Dam and into the lower river before, during, and after a water transfer. Field activities include monitoring of daily catches and releases of marked juvenile steelhead to measure trap efficiencies and estimate abundance throughout the season. Biological data include numbers, life stage, fork length, and weight of juvenile steelhead and Chinook salmon. Trap efficiency is being evaluated in relation to flow, fish size, water velocity, cone rotation speed, turbidity, and water temperature.

Andrea Fuller:

Phillip Gaines: Rotary-screw trapping at Red Bluff Diversion Dam. The U.S. Fish and Wildlife Service has monitored juvenile salmonid emigration at RBDD since 1994. The objectives of the monitoring program are to; (1) generate juvenile production indices for each run of Chinook salmon and steelhead trout, (2) describe temporal and spatial patterns of abundance and (3) life history characteristics. The data gathered was historically used to evaluate impacts on juvenile fish from operation of the Red Bluff Research Pumping Plant, and more recently for use by the Data Assessment Team to manage water exports, the Environmental Water Account for water allocations, the Interagency Ecological Program for real-time posting to their website, in support of NOAA Fisheries JPE model and to evaluate habitat restoration activities in the upper river. Future goals and objectives of the monitoring program may include implementation of a winter Chinook wild-stock tagging program, genetics work to better identify spring and fall Chinook and improving their trap efficiency model by incorporating factors such as fish size, turbidity and trap location into a multiple regression setting.

III. Discussion topics:

Monitoring Programs Report - A. Low explained that DFG was seeking CALFED funding to continue several monitoring projects that may not be continued due to state budget cuts, and that the CALFED Ecosystem Restoration Program Implementing Agency Managers had requested DFG to produce a comprehensive report detailing all current monitoring projects throughout the Central Valley. **A. Low** felt the report could be beneficial to other monitoring projects in seeking CALFED funding. Specifically, she was requesting the different projects to provide information about costs, geographic area covered, field sampling techniques, data analyses, data management, storage and reporting. **A. Low** distributed an example of a form that could be filled out by project managers for this purpose. **A. Low** further requested that the information be provided by the end of June. **J.D. Wikert** suggested that DFG could create a web based "form" that could be filled out by participants and easily updated as needed. **A. Low** said she would check into it.

Juvenile monitoring workshop - P. Gaines proposed that the team conduct juvenile a monitoring workshop with the goal of improving the quality of the data our projects gather, primarily rotary-screw trap data but all monitoring techniques would be included. He explained that the workshop could be as substantial or minimal as the team wished. **P. Gaines** further described how the sampling design and quantitative analyses he uses at Red Bluff Diversion Dam had been independently reviewed by professional statisticians and that he felt this was a major consideration by CALFED when they approved funding for winter Chinook monitoring at Red Bluff. He asked the team to consider a substantial workshop, perhaps involving independent reviews of their projects as a component. He further suggested that we could invite independent reviewers to attend the workshop to discuss their review, ideas and suggestions for improvement of the individual projects. Certainly this would be

costly. **A. Low** stated CALFED had provided money to help with a workshop conducted by the Salmon Escapement PWT and that it turned out well. **P. Brandes** suggested multiple smaller workshops, rather than one large comprehensive workshop. **C. Arrison** supported **P. Brandes** and expressed that we should keep it simple. **J. Kindopp** suggested that independent review of individual projects could be completely separate from any workshop. **P. Gaines** agreed, but thought if CALFED was funding the workshop, or the independent review process, more projects would be able to participate and benefit from the workshop. **J.D. Wikert** suggested multiple small workshops perhaps focusing on specific sampling techniques, issues or topics. **R. Titus** suggested keeping it small and informal. **A. Low** explained that to receive funding from CALFED for a workshop, outside experts would have to be brought in. After a lengthy discussion, with many team members commenting, it was decided that, rather than conduct a formal workshop, the team would pick a topic to focus on at each regular meeting.

The next two items on the agenda were "applicability of current length-at-date criteria" for assigning Chinook salmon race, and rotary-screw trap calibration purposes and techniques. Because both topics would require much discussion and preparation, it was decided to not discuss them here, but use them as a topic of focus at a future meeting. At our next meeting on Aug. 5th, the primary topic will be rotary-screw trap calibration. **P. Gaines** asked that team members bring any data, graphics or other information that would be relevant to our discussion.

M. Workman, EBMUD, notified the group that 200,000 cwt steelhead were released from the Mokelumne River in January of 2004 and another 200,000 would be released in March of 2005. Because adipose clipping is a universal mark for hatchery produced steelhead, EBMUD is trying to get the word out to other hatcheries, and groups conducting monitoring to wand CWT steelhead to aid in the recovery of these tag groups. EBMUD was looking for funding to supply the Central Valley hatcheries with wands to assist in the effort. **Pat Brandes** said there had been discussion between Armando Quinones and Mike Harris at CDFG about using some wands from the striped bass program and that might be an option to consider. She also mentioned that John Nelson, CDFG, has already arranged for a wand at the American River Hatchery. **K. Melanephy** noted that The Fishery Foundation had been seeing adclipped steelhead on the Cosumnes River, but had no way to detect cwts in these fish.

P. Brandes suggested some language changes to PWT objectives three and four. Specifically, change objective three to read: "Provide, with a collective voice, (strike collective voice) expert (strike expert) recommendations and/or critical reviews of issues affecting juvenile salmonids." Change objective four to read "Bring together biologists to share information (add, for coordination, standardization where possible, integration, collaboration, communication) and expertise that will benefit juvenile monitoring activities." There were no objections to these changes.